

FIG. 1

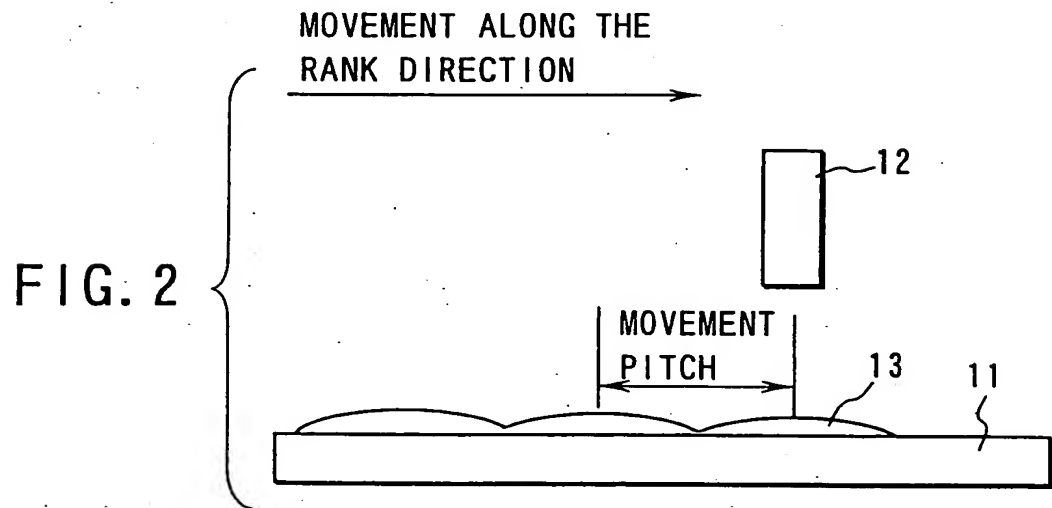


FIG. 2

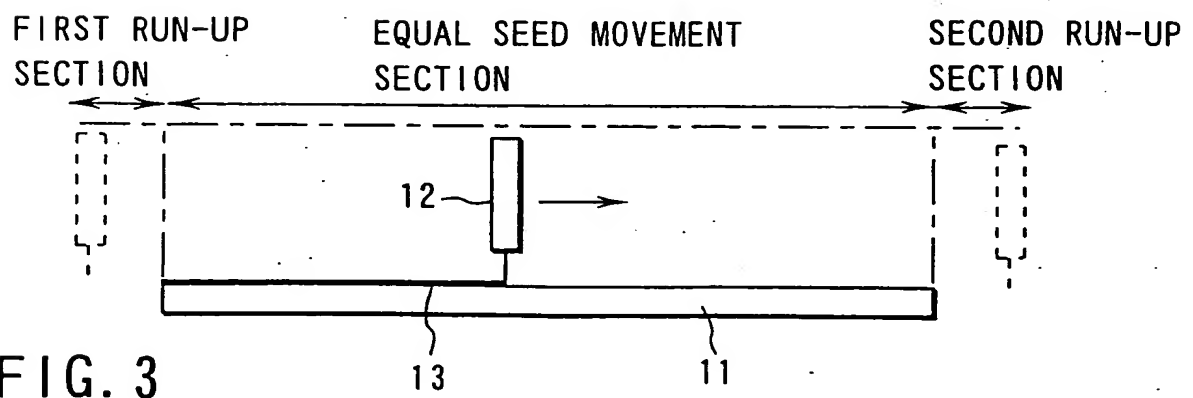


FIG. 3

FIG. 4

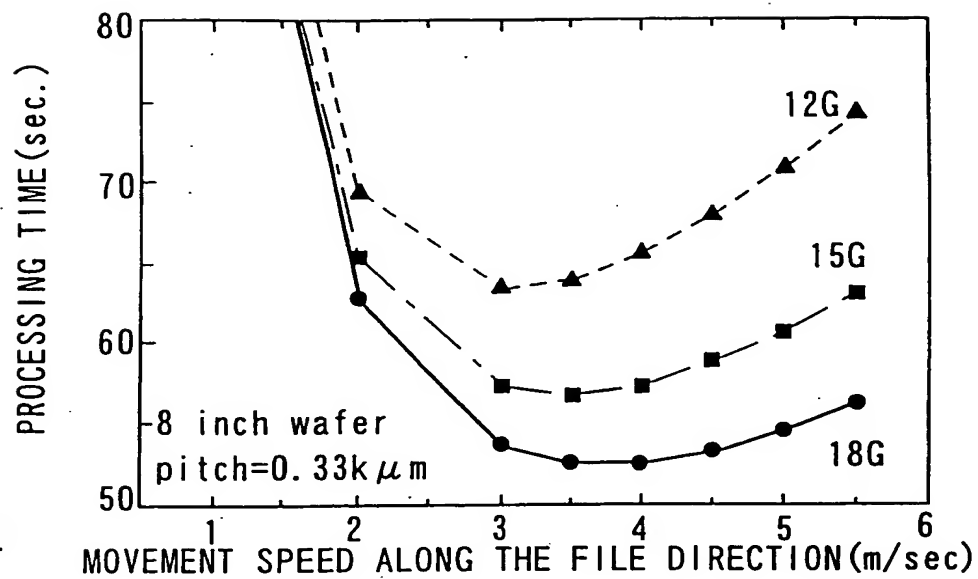


FIG. 5

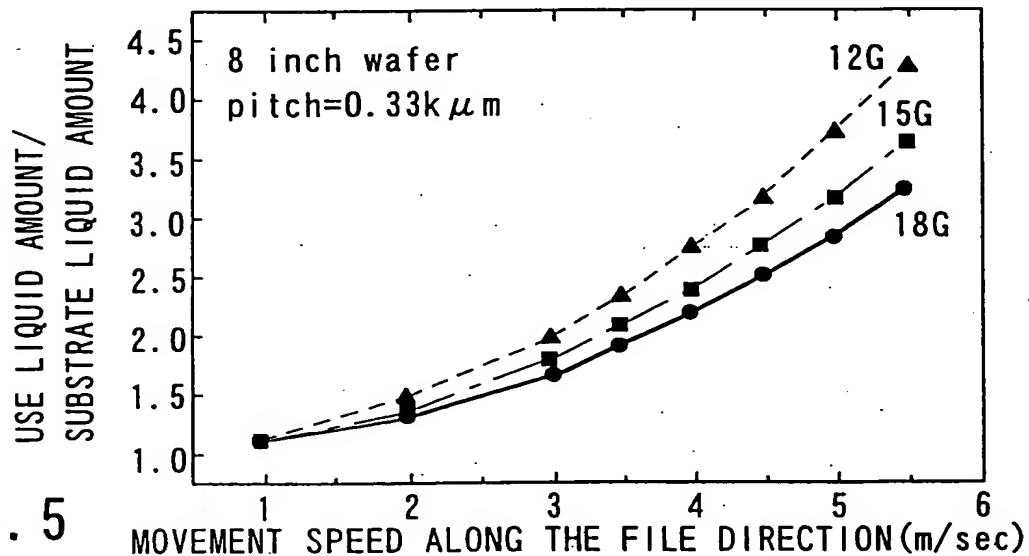
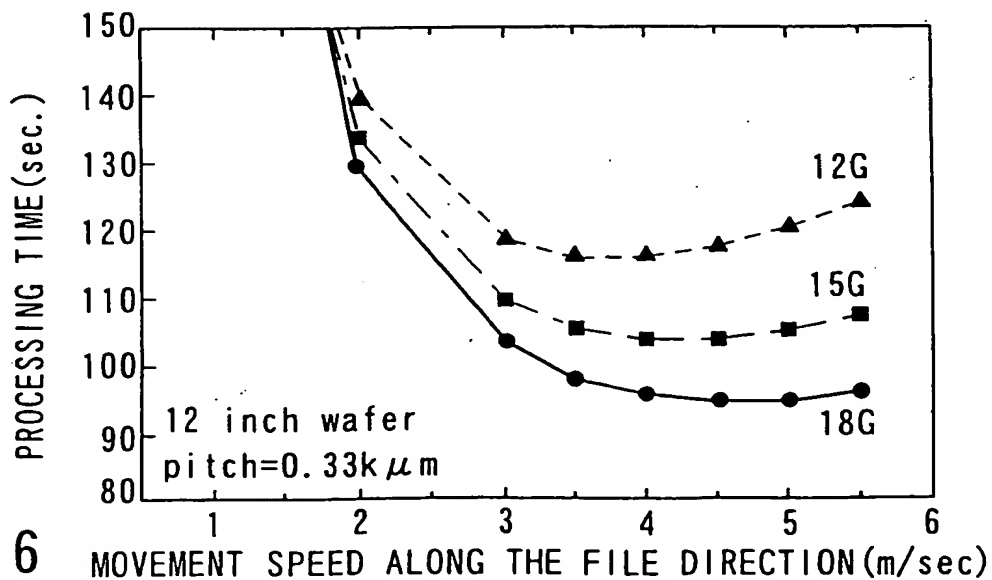


FIG. 6



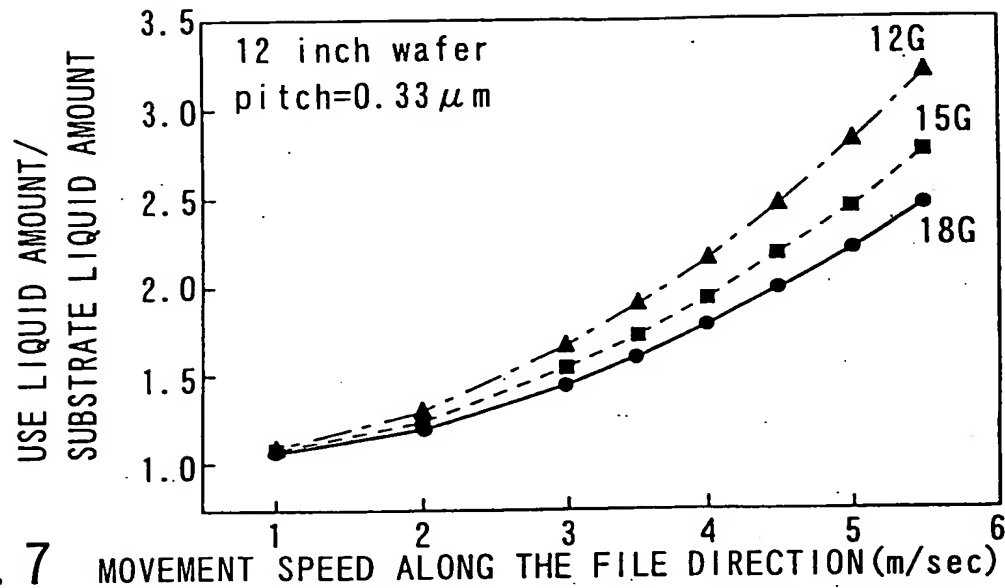


FIG. 7

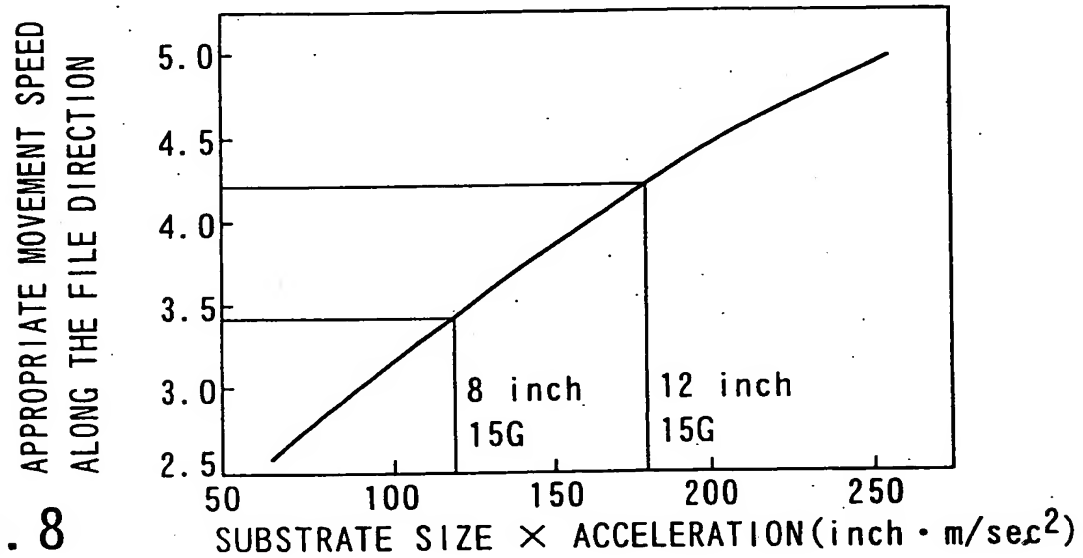


FIG. 8

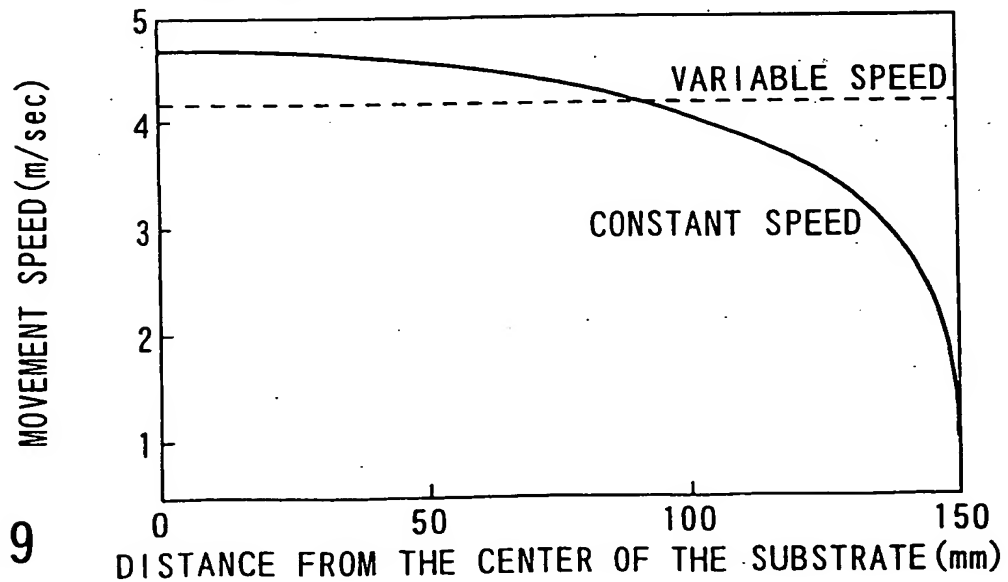
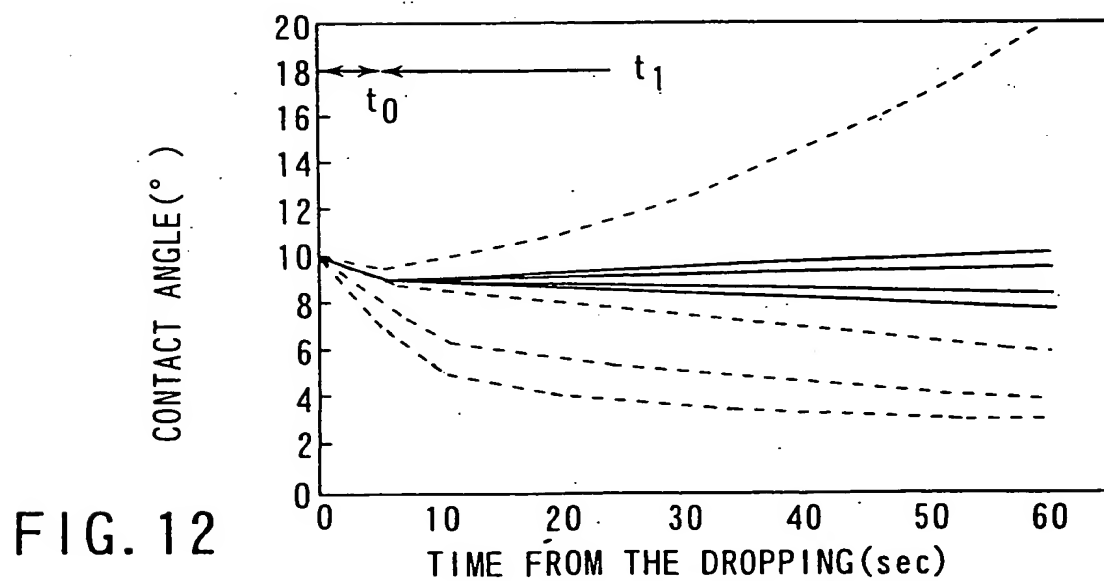
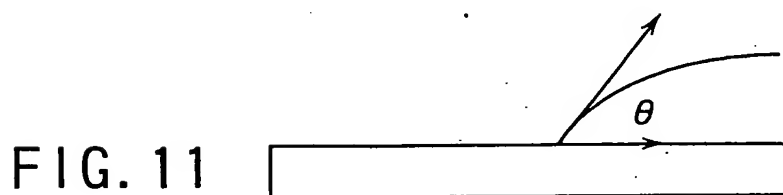
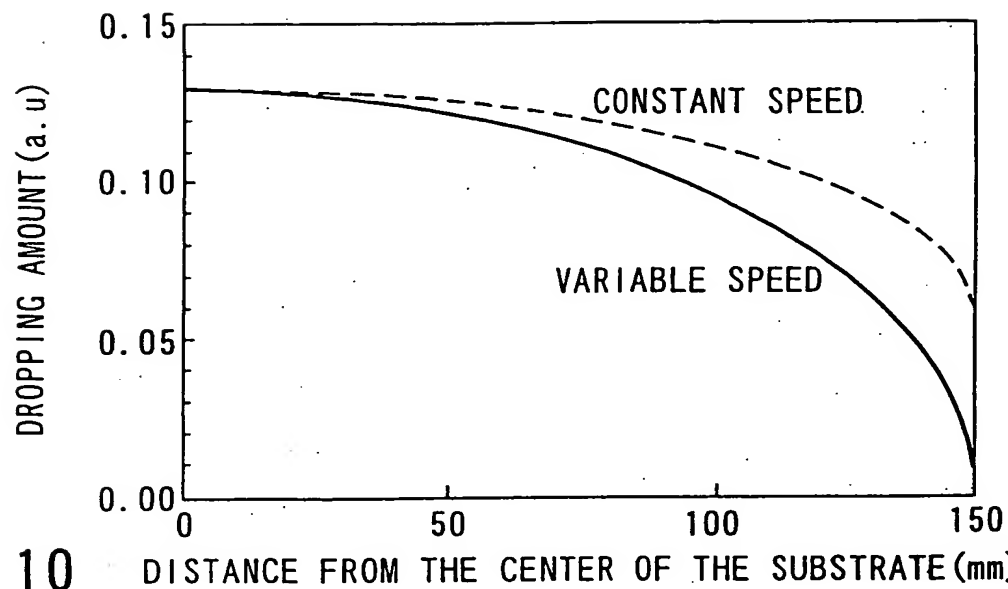


FIG. 9



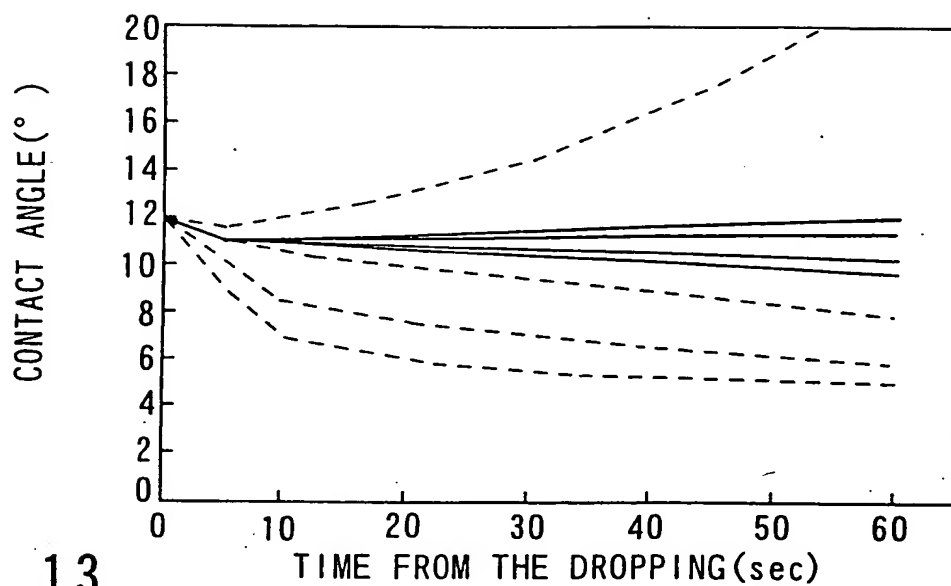


FIG. 13

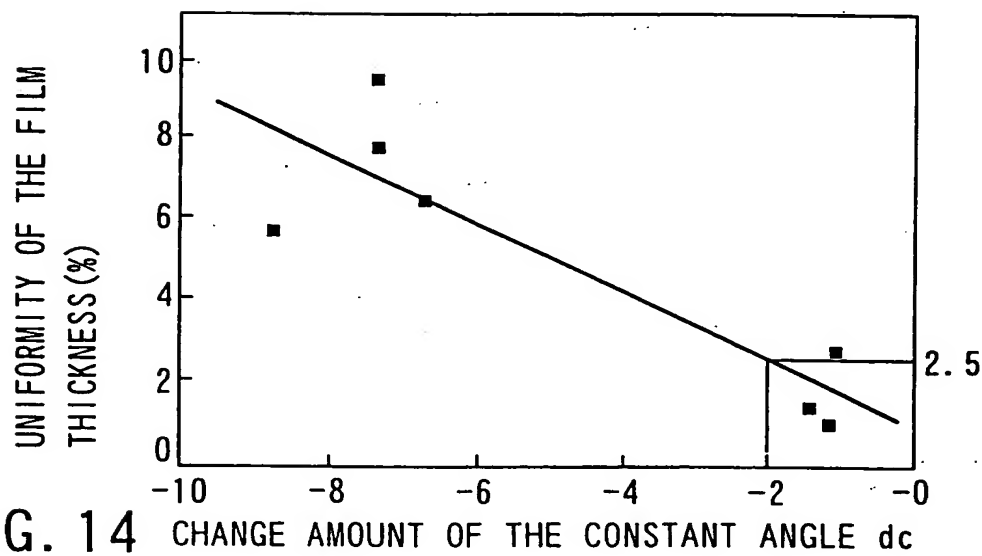


FIG. 14

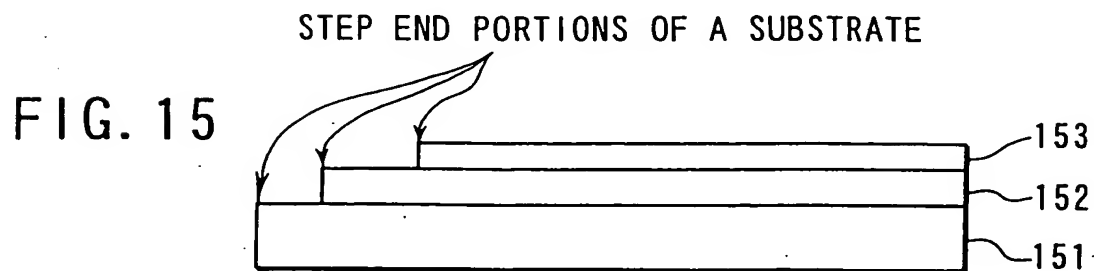
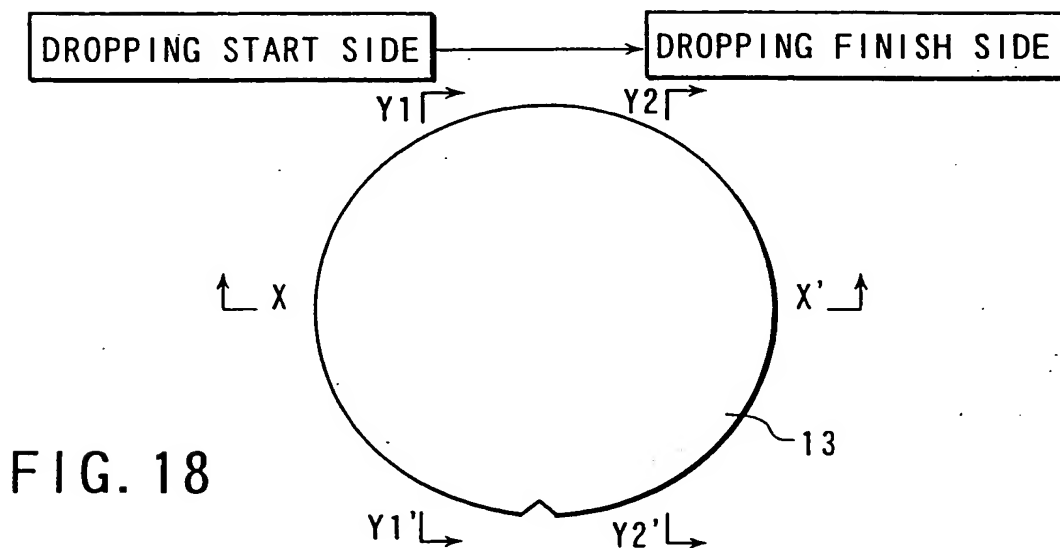
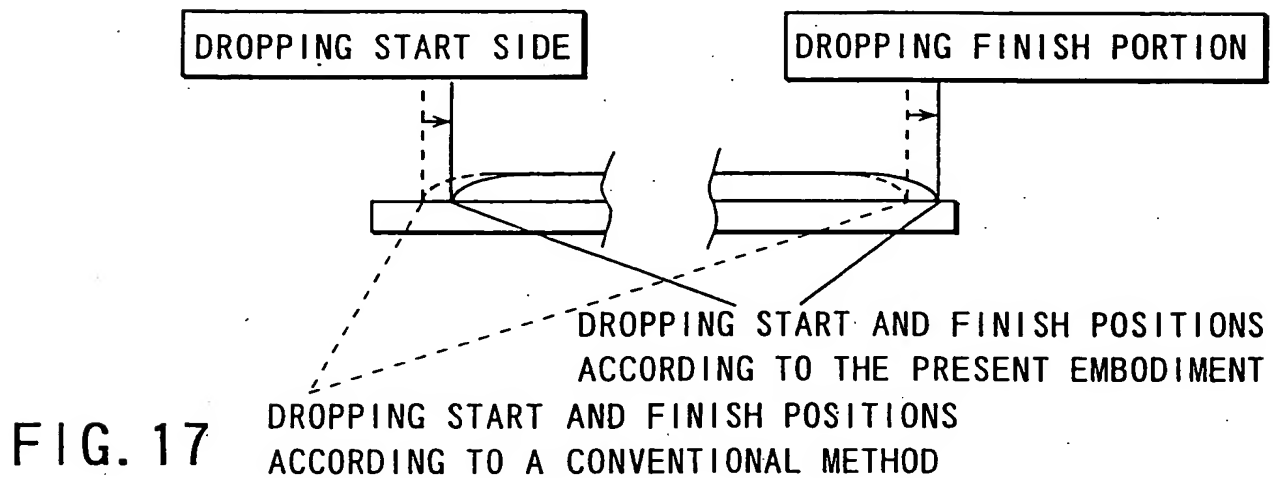
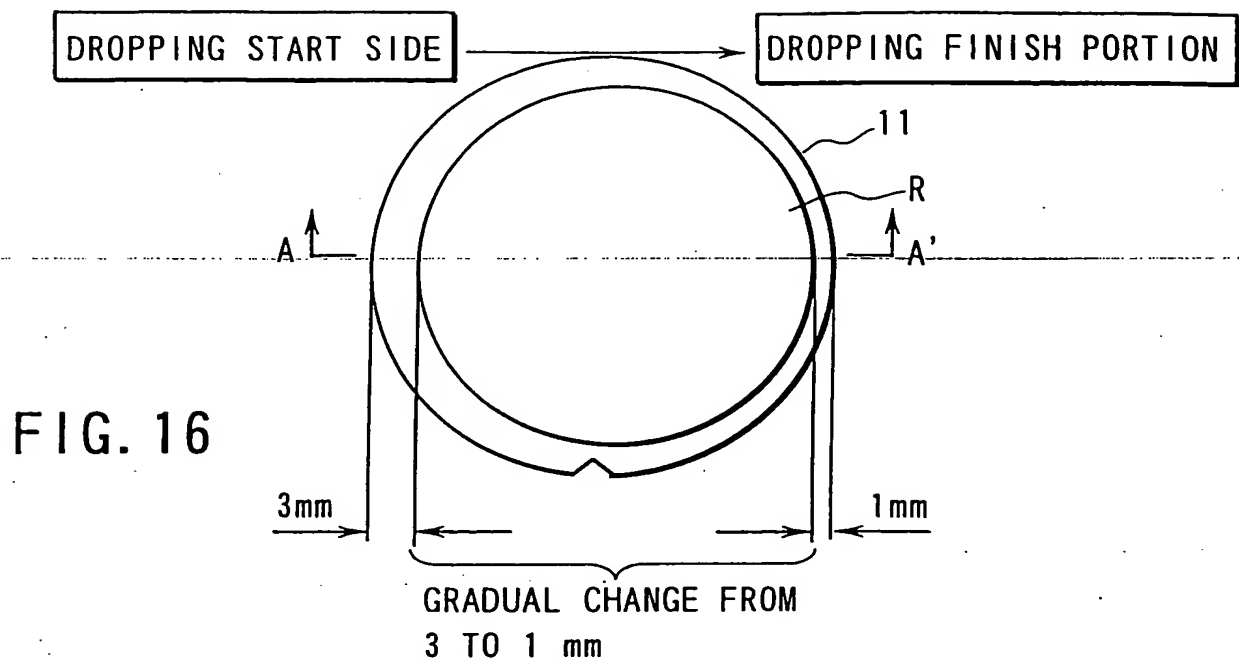


FIG. 15



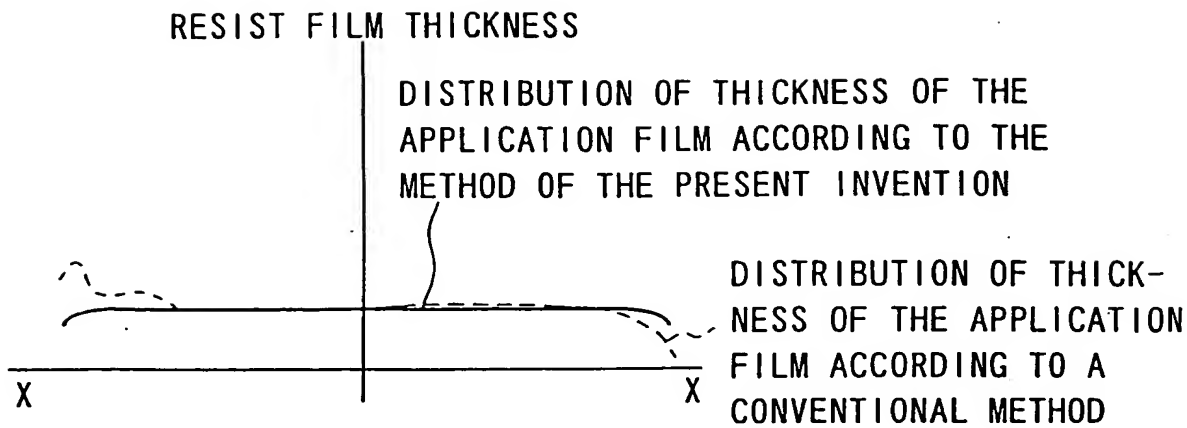


FIG. 19A

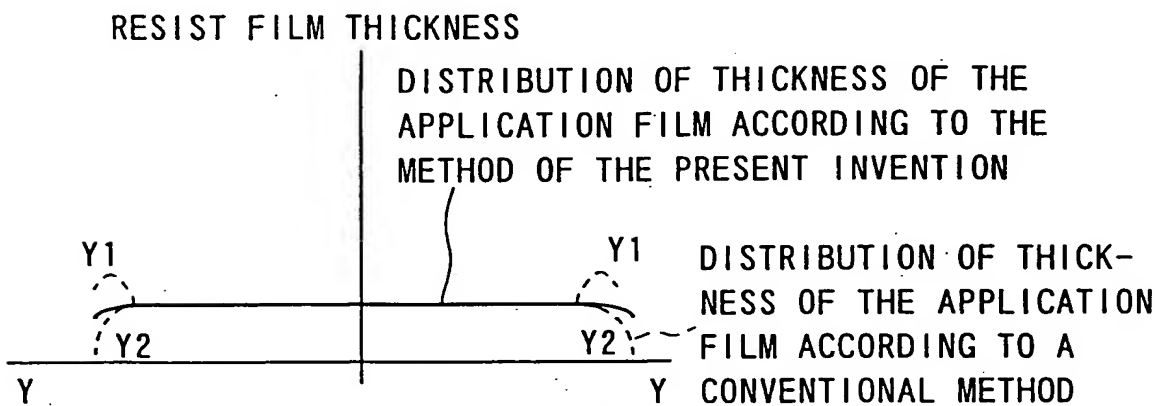
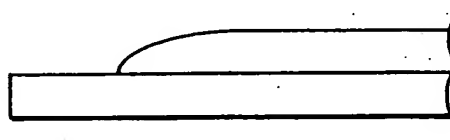


FIG. 19B

FIG. 20A



THE LIQUID IS STOPPED AT THE END OF THE SUBSTRATE, AND THE LIQUID SWELLS

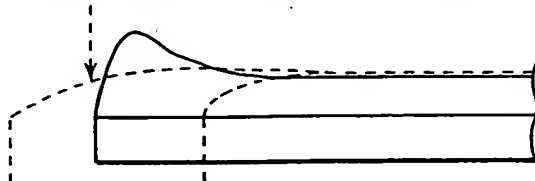


FIG. 20B

FLOWING DISTANCE IN THE CASE THAT THERE IS NO END OF THE SUBSTRATE

FIG. 21A

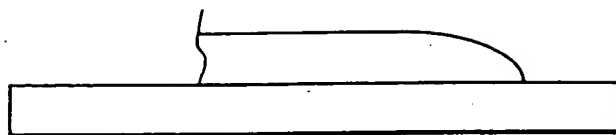
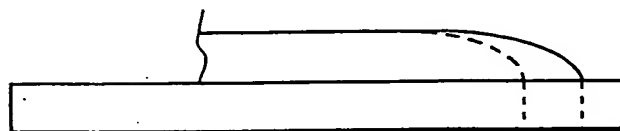
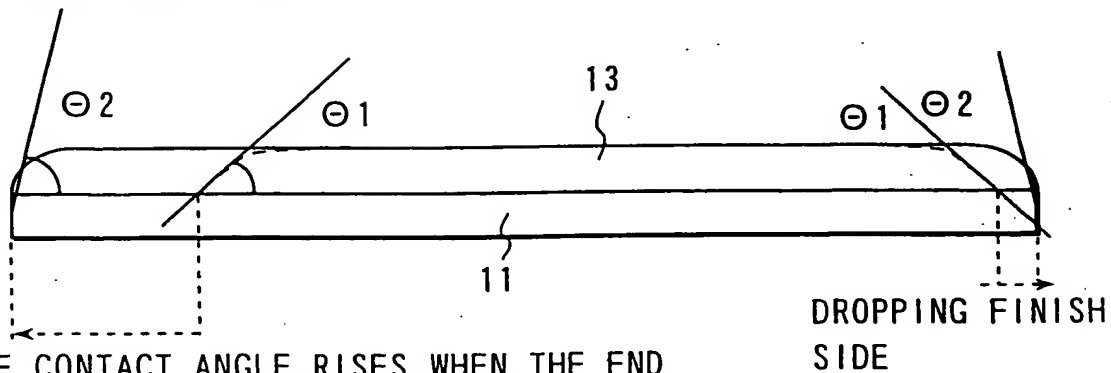


FIG. 21B



FLOWING DISTANCE

DROPPING START SIDE



THE CONTACT ANGLE RISES WHEN THE END  
OF THE LIQUID FILM REACHED THE END  
OF THE SUBSTRATE

FIG. 22



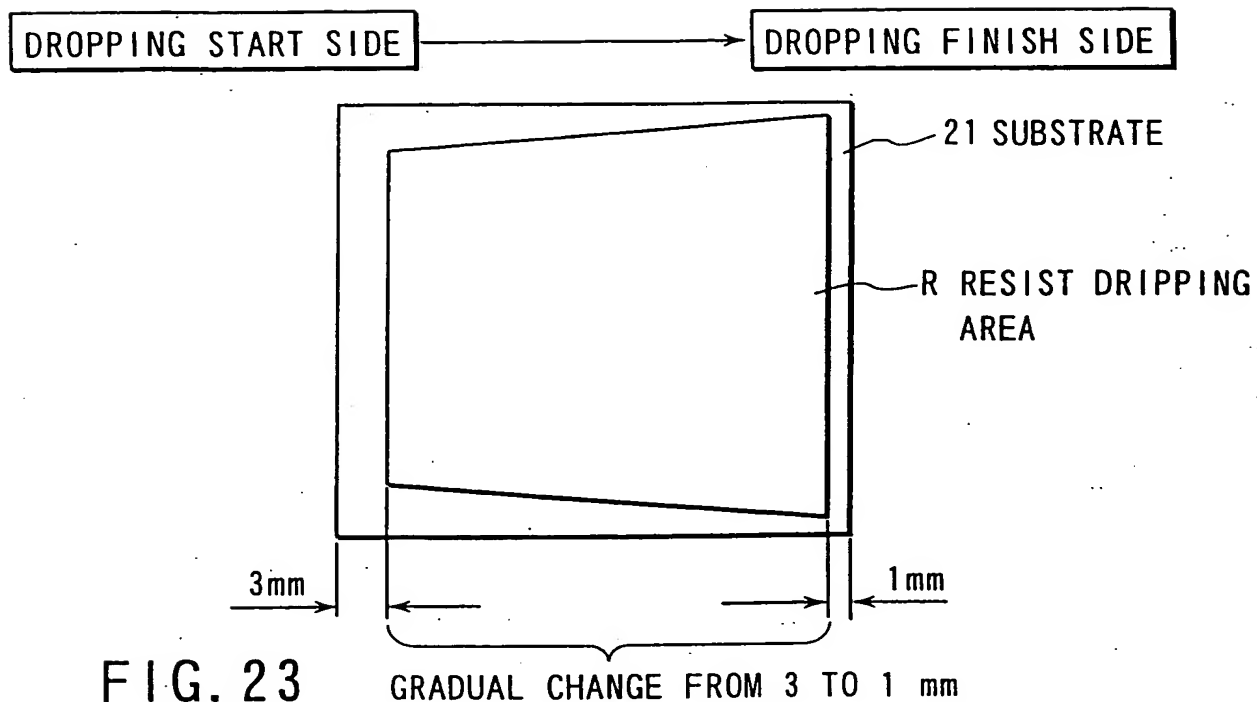


FIG. 23

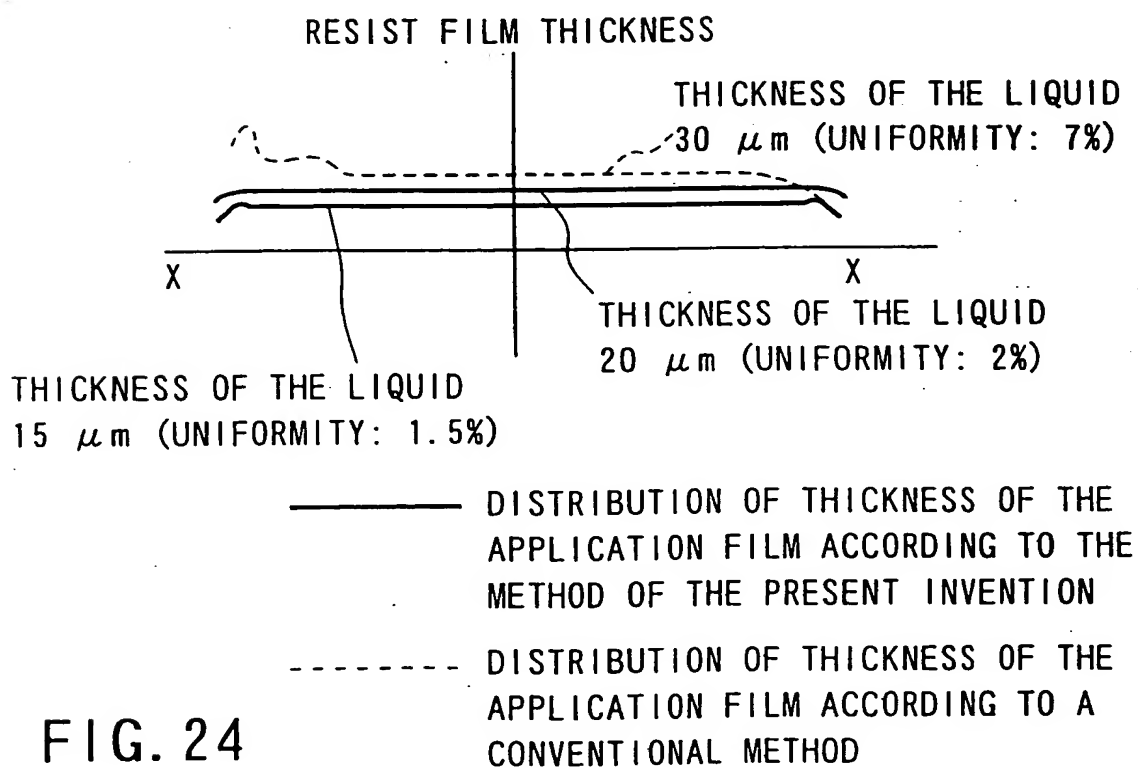
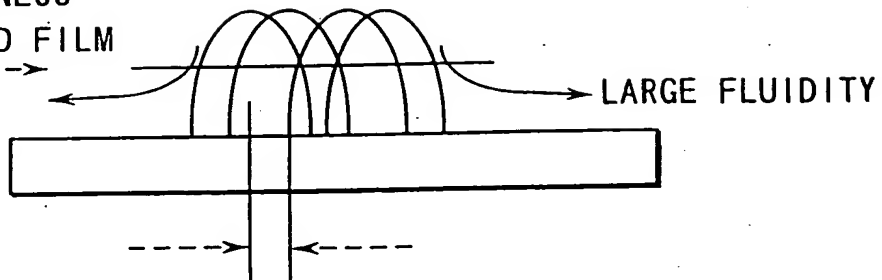
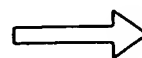


FIG. 24

TARGET THICKNESS  
OF THE LIQUID FILM



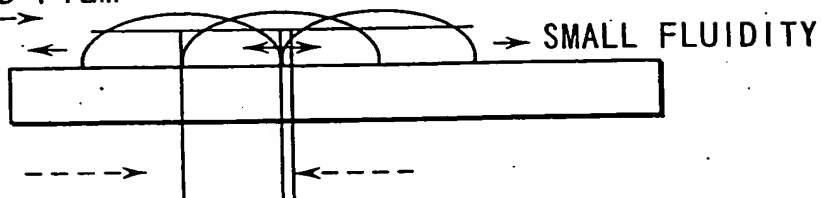
THE PITCH IS MADE SMALL  
TO MAKE THE THICKNESS  
OF THE LIQUID FILM LARGE



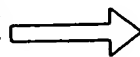
THE LIQUID  
FILM FLOWS

FIG. 25A

TARGET THICKNESS  
OF THE LIQUID FILM



THE PITCH IS MADE  
LARGE TO MAKE THE  
THICKNESS OF THE  
LIQUID FILM SMALL



THE LIQUID FILM BALANCES  
WITH INTERFACIAL TENSION  
WITH THE SUBSTRATE SO  
THAT THE FILM DOES NOT  
MOVE

FIG. 25B